Rush GIS Auditor (8)

70G1506

SIDWELL

November 24, 2003

Ms. Mary Ann Beard
Rush County Auditor
101 East 2nd Street Room 212
Rushville, IN 46173

Re: **Contract Addendum - Amendment**

Dear Mary Ann:

The purpose of this letter is to formally amend the recently executed addendum (dated September 22, 2003) to our contract agreement (dated December 17, 2001) in the manner you, Jim Owens, Rush County Sheriff, other county staff, Joyce West and Glenna Johnson from GeoComm Corporation have discussed.

Specifically, we have agreed to add software, software maintenance, and installation and training services to support the Rushville Police Department as part of the development of an Emergency 911 System for Rush County. The fees for this additional position will be as follows:

GeoLynx Software	$ 4,237.00
Software Maintenance	$ 847.00
Installation / Training	$ 1,130.00
Total Fee	$ 6,214.00

Further, this amendment establishes a completion date of April 4, 2004 (based on a timeline chart previously provided to you by GeoComm Corporation) for the services detailed in the addendum covering the development of an Emergency 911 System.

I trust that this letter is consistent with your understanding of our agreement. If so, please sign one copy of this letter as indication of the county's authorization to amend the addendum to our contract as stated herein and return it to my attention. The other copy is for your records.

THE SIDWELL COMPANY
GIS & Mapping Solutions

675 Sidwell Court • St. Charles, Illinois 60174-3492 • Phone: 630.549.1000 • Fax: 630.549.1111
www.sidwellco.com

Please feel free to contact me if you have any questions or comments regarding this matter.

Sincerely,

Neal Carpenter
Executive Vice President

THE SIDWELL COMPANY

Authorized this 15th day of December, 2003.

By: Marvin L Cobb

Title: Rush County Commissioner

NC:mmg
Enclosure
Cc: Joyce West
Brad Wright

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Contract Amendment

INTRODUCTION

This document is an amendment to the contract between Rush County, Indiana, and The Sidwell Company, dated December 17, 2001, for Professional Aerial Photography, Digital Orthophoto and GIS Services.

All products and services contained in this amendment will be provided and performed by GeoComm, Inc., 601 W. St. Germain Street, St. Cloud, Minnesota, (hereinafter called "GeoComm") through a subcontract agreement with The Sidwell Company (hereinafter called "Sidwell"). Sidwell will be responsible for all services provided and products created by GeoComm.

The services described in this document are to be provided by GeoComm to Rush County, as a subcontractor to Sidwell. Unless specified otherwise, products and services will be provided and delivered directly to Rush County.

SCOPE OF SERVICES

DEVELOPMENT OF DIGITAL MAP

GeoComm will create a map suitable for use within the Rush County communications center. This map will be used to display the origination points of conventional wired 911 calls and can be used in the future as a backdrop for the display of deployed emergency vehicles and wireless 911 caller locations.

The road centerline digital file will be developed from existing data (provided by the County). This data will then be enhanced by GeoComm to work within a dispatch mapping system for the location of wired E-911 calls.

Centerline Development

GeoComm will create a digital centerline file with the utilization of existing aerial images supplied by Sidwell. These aerial images for Rush County will provide the geographic reference for GeoComm's production staff to develop a new centerline file by tracing over the aerial photos at a scale of 1:386 feet. The final map product will be a base centerline map depicting all public roadways within the designated jurisdiction. The road segments will be broken at the appropriate locations and address ranges will be added as attributes to depict the appropriate location and odd/even designation. The accuracy of the digital base map will be dependent on the accuracy of the aerial images.

Map Data Enhancements

Breaking Road Segments at Intersections

Once the initial centerline file is developed, GeoComm will verify that all the roads are broken at intersections. Any roads that need to be broken will be done so by GeoComm. This process includes verifying that the end nodes are snapped together. This process is necessary for the interpolated address to plot on the correct side of an intersection.

Assigning Attributes To Road Segments

Once roads segments are broken at intersections, the road names and address range attributes will be added to depict the appropriate name and odd/even designation. The

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County will supply GeoComm with hard copy and/or digital maps showing appropriate road names and the addressing system, including a paragraph description of the addressing system. The final product will be a digital road file, broken at intersections, in either ESRI or MapInfo file format. This road file will have a minimum of the following fields added and attributed. These fields are: Street name, LeftFrom, LeftTo, RightFrom, RightTo.

Missing Road Segments

Missing road segments that are depicted on the hard copy maps provided to GeoComm will be added manually to the digital files. The digital street data will only be as complete as the hardcopy maps provided by the County. The geographic location of the missing road segments will be obtained from the hard copy maps and the location of the missing segments will be determined by relationship to adjacent roadways. The accuracy of the digital base map will be dependent on the accuracy of the existing data provided to GeoComm.

ESZ layer

GeoComm will also map the emergency response jurisdictions for each fire department, police department and ambulance within the County boundary. The addressing and the emergency response boundaries are used to define emergency service zones (ESZs), which are in turn identified by unique emergency service numbers (ESNs). This data will be imbedded in the map data layer and can be queried. GeoComm is not responsible for the mapping of any subscription based emergency services within the County on individual residential service. The resulting layer will be a polygon layer attributed with ESN, PSAP, Fire, Law and Ambulance.

MSAG Validation

The County will be asked to provide a digital copy of the already existing 911 master street addressing guide (MSAG) from the 911-database provider. This data will be used to validate the street naming conventions, house numbering, street ranging, community names, and other relevant street file information contained in your base map. This will ensure that the mapping files are compatible with your MSAG and with the telephone records in your existing 911 database. The "balancing" and "mirroring" of these databases, (the MSAG, 911 database, and base map) at the outset will ensure the greatest hit rates and accuracy levels as it relates to the proper depiction of 911 caller location data on the finished digital map files. The County may also be asked to obtain a copy of the 911 database if further verification of map files is desired.

If Rush County provides the E-911 database, obtained from the database provider, GeoComm will "geo-code" the addresses to create a point coverage of all MSAG valid addresses. The process of geo-coding involves the simulation of an E-911 call from every residence in the 911 database.

Geo-coding the specific addresses contained in your 911 database will ensure that all MSAG valid addresses will display on the map. The plotting of call locations is determined by where the calling party's house number falls on a particular road segment. Since this road segment has already been assigned a high/low house number range, the system plots

the call accordingly. If you have a road segment with a low house number of 10000 and a high house number of 10999, and someone with a house number of 10500 dials 911, the icon depicting their call location will fall right in the middle of this road segment.

The location of any additional missing road segments will be determined at the time of geo-coding. Any address locations in the present 911 database that do not find a corresponding roadway within the map after the initial map development, will become apparent. The analysis of the telephone data that did not geo-code will provide a specific listing of the roads that are missing from the current base map. An analysis of maps provided by the County should reveal the location of the missing roads.

The results of the geo-coding process will be provided to the County for further clarification of any issues that may arise.

GEOLYNX™ DISPATCH MAPPING SYSTEM

The process of locating and graphically depicting an emergency incident is fully automated by the installation of GeoLynx™. For all "wired" E-911 calls, GeoLynx™ extracts the address information provided by the PSAP equipment and sends it to the GeoLynx™ PC on which the County's digital base map resides. This results in an instant depiction of the call location by the plotting of an arrow on the map.

GeoLynx™ is a full-featured, professional-level, desktop mapping software package. The user is given full command of the map view through Magnify, Zoom, and Pan functions. In addition to these functions, controlling the individual map layers can modify the map display. The user is also given a wide selection of Edit tools for modifying the Map, including line and polygon creation and text tools for labeling or annotation of the map. Any changes may be made permanent by adding them to a new or existing map layer. The software also supports most common printers and plotters.

GeoLynx™ taps into the E911 equipment through the CAD interface port or a similar connection dependent on the specific equipment present. When an E911 call is received, the GeoLynx™ software will accept the ANI/ALI data stream and parse the information for Name, Address, and Phone Number.

At this point two options exist, if a pre-geo-coded local database is present, the software uses the phone number or address to query the database, display the call location, and open an information window containing the contents of the local database. If a local database is not present, the software uses the address from the remote E911 ALI database.

Once the call is located by either of the two methods, the map is re-drawn to an appropriate zoom level and is centered on the call location, which is marked by a red arrow. Upon receipt of a new E911 call, the red arrow for the previous call changes to a red triangle, continuing to mark the location of all received 911 calls until the data set is cleared by the dispatcher. All the while, GeoLynx™ maintains a second map of the entire county in a small box on the screen. All marking icons will remain on the screen as the map display is changed through the Magnify, Zoom, or Pan commands. With the AutoFax option the system will automatically fax a copy of the map display (clearly depicting the 911 caller's location) to a number determined by the call location, or the operator may

manually initiate the fax. This feature is ideally suited to faxing a copy of a 911-call location map to volunteer fire departments, which will have the map already awaiting them upon their arrival at the station.

One dedicated phone line per GeoLynx™ site is required to access the remote connectivity features. This phone can be shared by multiple GeoLynx™ workstations, but it cannot be used by, or shared with, any other devices. The presence of a dedicated phone line serves to enhance GeoComm's ability to troubleshoot your system and to update your map files as needed.

GeoLynx™ is capable of accepting digital map files in ESRI shape format or MapInfo "midmif" files.

Multiple PSAP Positions

In an environment where more than one PSAP station exists and multiple workstations of GeoLynx™ are required, the system can be configured to allocate the locating of 911 calls to the "next available" dispatcher. The system is in sync with the PSAP phone answering equipment so the instant any dispatcher answers a 911 call the appropriate map data is sent to the computer and monitor that dispatcher ordinarily observes. The location of all calls in progress can be accessed by any dispatcher at any time through the Call Log feature.

CAD Incident Depiction

Displaying icons on the GeoLynx™ map at the locations of CAD entered events is relatively straightforward. If your CAD vendor can provide for us an RS232 output containing the MSAG valid address of a given event formatted exactly as the E911 ALI address is formatted (example: if ALI says 1234 S MAIN ST then CAD output cannot be 1234 MAIN ST S, it must be 1234 S MAIN ST), then GeoLynx™ can take that properly formatted address (and CAD event # if desired) and plot an appropriate icon at that location with or without the CAD event # depicted as well.

Wireless Call Location

When a Phase 1 wireless 911 call is placed, GeoLynx™ will take the incoming E-911 data associated with the wireless 911 call and use it to plot the specific location of the cell site through which that wireless call was initially processed, as well as a shading on the map to depict the radio coverage area of that specific cell site.

In order to plot Phase 1 wireless 911 calls, the County will be required to provide cell site locations and approximate coverage maps to GeoComm to be included in the map data files. The cost for mapping the towers/sectors is $96.00 per cell sector facing and is included in our pricing. We estimate there to be 20 sectors that will need to be mapped.

Further, since the information is being depicted on a GIS-based map with the ability to plot latitude and longitude ("X and Y coordinates"), as soon as the wireless providers are equipped to transmit X and Y coordinate data for the actual caller's location to the 911 network (FCC "Phase 2") GeoLynx™ is already equipped to receive that caller's X and Y location data and plot their actual location on the GeoLynx™ map within the shaded coverage area.

GEOPOINT ADDRESS ASSIGNMENT SOFTWARE

GeoPoint address and map maintenance software from GeoComm is a geographic information system that automates the process of assigning new addresses and adding new roads to an existing county digital centerline road map. This system consists of a copy of the GeoPoint software, a combined GPS/Beacon receiver, and all of the necessary attachments to allow the County to effectively and accurately maintain the newly implemented addressing system. This system, which runs on a conventional laptop computer (laptop not included), will allow local staff members to easily assign new addresses, add new roadways to the GIS base map and imbed additional GPS points within the County into the map in the future. Included with this system is all necessary training to allow for the County's staff members to become proficient in the use of this system. The software will work with the Rush County addressing scheme being used today.

SOFTWARE MAINTENANCE & SUPPORT

Software Installation and Training

GeoComm typically provides user training immediately following the installation of the software product. Training Manuals are provided for all users. Minimum user training can usually be accomplished in one hour and can be scheduled over no more than two shifts.

GeoComm would propose to complete installation within 60 days from receipt of a signed contract.

Upon completion of the installation and training, GeoComm provides the customer with an Acceptance Test Plan (ATP), which is used by the customer to test all aspects of the product and its performance. Ideally, the ATP is completed immediately following installation and training.

Hotline Support and Software Maintenance

Technical support, via the 24/7 GeoComm Telephone Hotline, provides peace of mind to ensure the effective and efficient operation of the customer's E911 system. Software updates are also made available as part of this service to enhance the system's functionality and keep the customer up to date with their operation's constantly changing needs.

Telephone support for the first 30 days following installation of the software products are covered by the GeoComm 90-day warranty period. After this initial 90 days, GeoComm offers varied levels of continued support via the Hotline Telephone and Software Maintenance service or on a time and material basis. Additional Hotline Support and Software Maintenance information is included in the Pricing section of this proposal.

PRICING

Project	#	Unit Cost	Total
Software			
GeoLynx Mapped	2	$4,237.00	$8,474.00
Installation/Trainin	1	$3,955.00	$3,955.00
1st Year	1	$2,825.00	$2,825.00
			$15,254.00
GeoPoint Map	1	$6,775.00	$6,775.00
1st Year	1	$1,412.00	$1,412.00
			$8,187.00
GIS			
Centerline Creation from Aerial	1	$2,825.00	$2,825.00
Synchronization of the Centerline Data &	1	$15,809.00	$15,809.00
Phase I Cell Sector	20	$96.00	$1,920.00
			$20,554.00
		Project	**$43,995.00**

Rush County, Indiana 911 Itemized Proposal Costs

Price Notes

- To operate GeoLynx™ the county would be required to provide a PC(s) as specified under County Responsibilities of this agreement. The County is required to provide one out-bound telephone line connected to the primary GeoLynx workstation, a copy of PC Anywhere, version 8.0 or newer and a dedicated fax modem. The telephone line, PC Anywhere software and dedicated fax modem will ensure proper functionality of the GeoLynx Auto Fax feature and will also allow for remote maintenance and technical support of the system by GeoComm technicians.
- GeoComm is not responsible for poor GeoLynx AutoFax performance caused by sharing modem telephone lines between multiple systems. The ability for GeoComm to provide remote system maintenance over a telephone line is desirable as it allows for fast problem response time and could eliminate costly on-site trip fees for support and upgrades.
- Any additional mapping work and costs will be pre-approved with Rush Indiana prior to any work, after GeoComm reviews the map files and their interaction within the GeoLynx™ System.
- The County would be required to provide cell site locations and approximate coverage maps to GeoComm to be included in map data files. The cost for mapping the sites/sectors is $96.00 each.
- Pricing assumes the County will provide a laptop computer to operate the GeoPoint System. Specifications are outlined in County Responsibilities.
- Pricing listed above for the 24/7 support/software version upgrades is an annually renewable amount, for which commencement would begin after the 30-day warrantee period.

COUNTY RESPONSIBILITIES

Due primarily to the public nature of the E-911 project, the consultant cannot provide all management elements within the context of this agreement. Rush County will be asked to provide local support if the project is to be carried out in an efficient and timely manner. Some of those responsibilities are as follows:

Contract Amendment

- Provide a local project coordinator.
- Provide current and up-to-date hard copy map documents for the County and the cities (if applicable) to be included in the mapping project, including a written description of the addressing system along with all other necessary sources pertaining to the addressing system in the county.
- Provide a current Plat Book and any related support information.
- Provide a digital copy of the MSAG and 911 ALI database.
- Provide Emergency Service Zone information:
  - Hard copy maps showing all Emergency Service Zones
  - Listing of ESN and corresponding respondents
  - The mapping of ESZs does not include the mapping of subscription zones
- Provide digital copy of aerial images in a standard format (i.e. .sid or .tiff) along with the corresponding world file information and a hard copy map showing the location of each image (to be provided by Sidwell).
- Provide a PC workstation to operate each position of the GeoLynx™ Dispatch Mapping Software. The requirements for the PC are as follows:
  - IBM Compatible PC
  - Microsoft Windows 98™, 2000™, NT™ or XP
  - 650 MHz Pentium III Processor or higher
  - 2 Port Serial Lava or SIIG Card
  - 8 GB Hard Disk Drive or higher
  - 3.5" 1.44 MB Floppy Disk Drive
  - 48X CD-ROM Drive
  - 128 MB of RAM Memory or higher
  - 17" Color Monitor with 800 x 600 screen resolution
  - 56K BPS Modem (non Win)
  - Remote Access: PC Anywhere 8.0 or higher & out-bound direct telephone line
- Provide a "tested" connection from the GeoLynx™ workstation(s) to the PSAP Controller CAD port providing a "spill" of the ANI and ALI upon receipt of a 911 call.
- For dial-up maintenance, the County is required to provide one out-bound telephone line connected to the GeoLynx™ workstation, a copy of PC Anywhere, version 8.0 or newer and a dedicated modem from GeoComm's approved list of modems.
- Provide cell site locations and approximate coverage maps to be included in the map data files.
- If GeoPoint is chosen as a project option, the County would be required to provide a laptop computer to operate the GeoPoint Address & Map Maintenance Software. The laptop computer is to be shipped, at the County's expense, to GeoComm for software loading. The minimum requirements for the computer are as follows:
  - MS Windows 98, NT, 2000 Pro or XP
  - 650 MHz Pentium Processor

- 128 MB RAM Memory
- 8 GB free space on hard-drive or higher
- 24X CD-RW Drive
- 3 ½ Floppy Drive, 1.44 MB
- 800 x 600 screen resolution - Active Matrix Display
- 1 Full Duplex Serial Port for GPS device
- 56K BPS Modem (no Win)
- Remote Access: PC Anywhere 8.0 or higher & out-bound direct telephone line.

This contract amendment, as heretofore described, made and entered into on this 22nd day of September, 2003.

Contract Amendment

THE SIDWELL COMPANY RUSH COUNTY, IN

By _____ By _____
Timothy C. Hopkins, President Janet Kile, Commissioner

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TIMOTHY C. HOPKINS personally appeared and signed before me as an officer and agent of said corporation this 22 day of August, 2003.

By _____
Dwight Sweet, Commissioner

By _____
Marvin Cole, President of Commissioners

Attest

By _____
Mary Ann Beard, Auditor

Notary
Mildred M. Gredlics

OFFICIAL SEAL
MILDRED M. GREDLICS
NOTARY PUBLIC, STATE OF ILLINOIS
MY COMMISSION EXPIRES 12-11-2005

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